

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: VILLAGE POND	Lake Area (ha):	14.16
Town: MARLOW	Maximum depth (m):	3.0
County: Cheshire	Mean depth (m):	1.0
River Basin: Connecticut	Volume (m ³):	144500
Latitude: 43°07'05" N	Relative depth:	0.7
Longitude: 72°11'45" W	Shore configuration:	2.32
Elevation (ft): 1155	Areal water load (m/yr):	364.0
Shore length (m): 3100	Flushing rate (yr ⁻¹):	357.0
Watershed area (ha): 9227.5	P retention coeff.:	0.02
% watershed ponded: 4.8	Lake type:	natural w/dam

BIOLOGICAL:

14 January 1991

20 August 1990

DOM. PHYTOPLANKTON (% TOTAL)	#1	TABELLARIA 40%	ASTERIONELLA 45%
	#2	SYNURA 35%	CHRYSOPHAERELLA 35%
	#3	(ALL ALGAE SPARSE)	
PHYTOPLANKTON ABUNDANCE (cells/mL)			335.0
CHLOROPHYLL-A (µg/L)			3.00
DOM. ZOOPLANKTON (% TOTAL)	#1	SPARSE - NO DOMINANT	NAUPLIUS LARVA > 99%
	#2		
	#3		(ALL VERY SPARSE)
ROTIFERS/LITER		8	0
MICROCRUSTACEA/LITER		0	11
ZOOPLANKTON ABUNDANCE (#/L)		8	11
VASCULAR PLANT ABUNDANCE			Very abundant
SECCHI DISK TRANSPARENCY (m)			1.8 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		14.0	8.0
BACTERIA (fecal col., #/100 ml) #1			< 10
	#2		< 10
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:

Lake: VILLAGE POND

Town: MARLOW

	14 January 1991		20 August 1990		
DEPTH (m)	1.0		1.0		
pH (units)	5.4		5.3		
A.N.C. (Alkalinity)	0.4		0.4		
NITRATE NITROGEN	0.08		< 0.05		
TOTAL KJELDAHL NITROGEN	0.33		0.25		
TOTAL PHOSPHORUS	0.035		0.017		
CONDUCTIVITY (μ mhos/cm)	30.7		28.7		
APPARENT COLOR (cpu)	30		55		
MAGNESIUM			0.36		
CALCIUM			1.4		
SODIUM			2.6		
POTASSIUM			< 0.40		
CHLORIDE	2		3		
SULFATE	6		4		
TN : TP	12		15		
CALCITE SATURATION INDEX			6.2		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1990

D.O. S.D. PLANT CHL TOTAL CLASS

**	3	6	0	9	Meso.
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COMMENTS:

1. No public boat launch site; we launched a canoe at the town beach.
2. This is a natural wide area in the Ashuelot River that was enlarged by damming.
3. Routes 123 & 10 cross the lower end of the pond and Rt. 10 runs adjacent to the pond. However, presumably because of the high flows and flushing rate, there was no build up of chloride levels in the pond from road salting.
4. The dominant genera of wholewater phytoplankton were Mallomonas (25%) and tiny green flagellates (15%).

VILLAGE POND

MARLOW



Rough Bathymetric Chart

DES - 1990

Sounded by Fathometer



5 ft. depth contours

not sounded →

10

→ *road*

→ *roads*

[illegible]

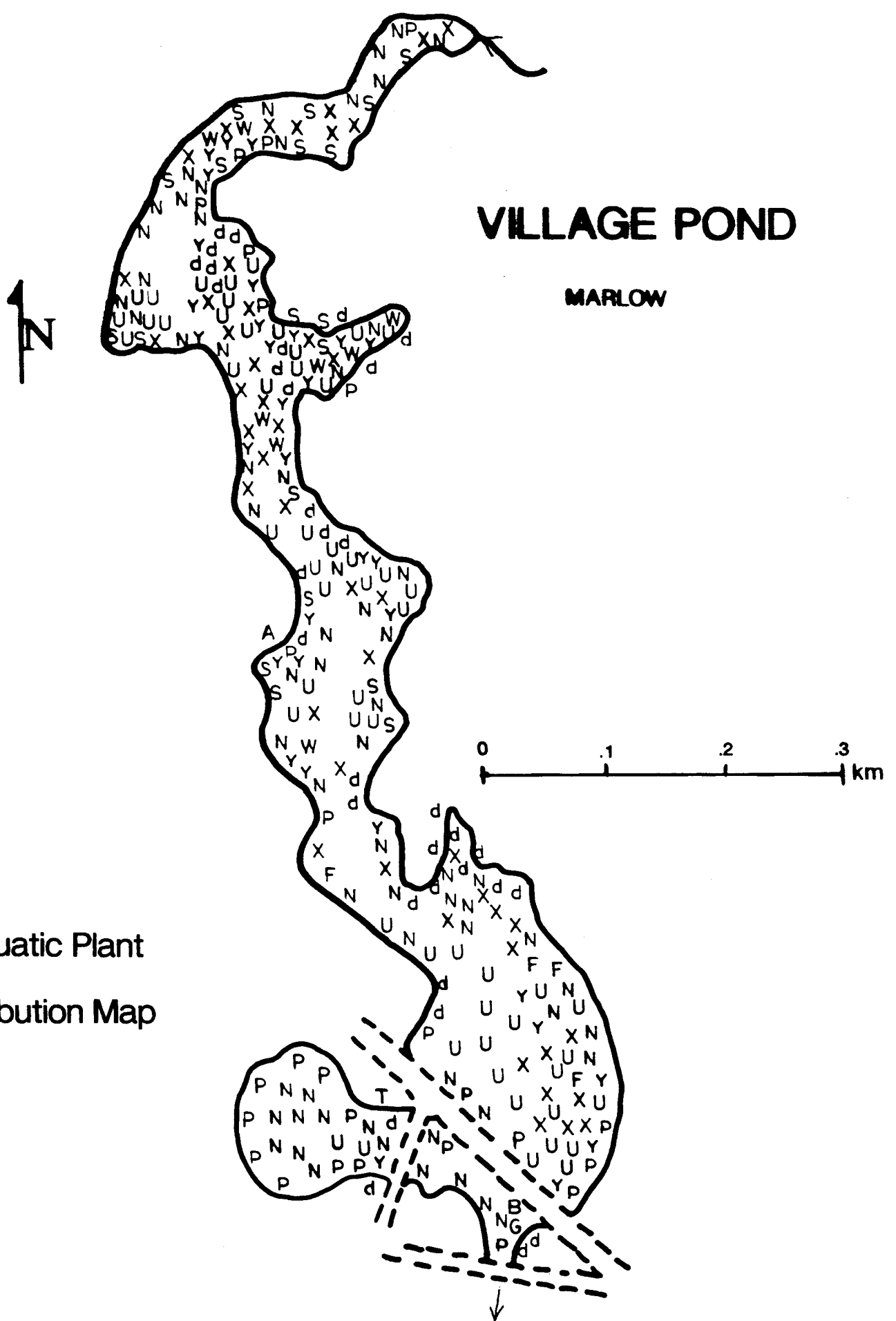
TOWN: MARLOW
WEATHER: MOSTLY SUNNY; COOL

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SECCHI DISK (m):    1.8 VOB      COMMENTS:
BOTTOM DEPTH (m):   1.8
TIME: 1245
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***Dissolved oxygen values are in mg/L**

Aquatic Plant
Distribution Map



[illegible]